

AB 1125 (Pavley)

Rechargeable Battery Recycling Act of 2006

Co-authors: Hancock, Koretz, Laird, Leno, Lieber, Levine, Saldana
and Senators Kuehl and Torlakson

PROBLEM

The California Department of Toxic Substances Control has determined that all discarded batteries are toxic and must be disposed of as hazardous waste. Under California's Universal Waste Rule, households were granted a temporary exemption from the current landfill ban on batteries, however, this exemption expires on February 8, 2006.

According to the U.S. EPA more than 350 million rechargeable batteries are purchased annually in the United States. Rechargeable batteries contain toxic heavy metals such as cadmium, mercury, and lead. About 80 percent of rechargeable batteries are nickel-cadmium (Ni-Cds). Ni-Cds cannot be redesigned to eliminate cadmium (the toxic constituent), since cadmium is essential to the battery's function. Batteries with less toxic constituents have been substituted to Ni-Cds, but this is not technically possible for all applications. Other types of rechargeables in use today are lithium-ion, nickel-metal hydride, small sealed lead-acid, and rechargeable alkaline manganese batteries.

The environmental release of heavy metals, such as cadmium, poses potential health threats. Cadmium, a known carcinogen, can accumulate in the environment by leaching into soil, ground water and surface water from

landfills, and it can enter the atmosphere through incinerator smokestack emissions. Cadmium is toxic to fish and wildlife and can pass to humans through the food chain. It has been associated with numerous human illnesses, particularly lung and kidney damage. Once absorbed in the body, cadmium can remain for decades. Ni-Cds are estimated to contribute approximately 75 percent of the cadmium found in municipal solid waste (MSW). Similarly, small sealed lead-acid batteries accounted for 65 percent of the lead found in MSW.

Publicly available data on battery sales in the U.S. are very limited, but industry estimates indicate that the market for rechargeable batteries is growing faster than the market for non-rechargeable (primary) batteries. About 80 percent of rechargeable batteries are not sold separately but rather are enclosed in products. The remainder are sold directly to consumers, at retail. According to the National Electrical Manufacturers Association (NEMA), the U.S. retail market for rechargeables is growing twice as fast as the retail market for primary batteries, with compound annual growth of nine percent from 1992 - 1994. The Ni-Cds industry estimates that its batteries had double digit annual growth in the 1980s; this slowed to single digits in the 1990s, but is expected to average over six percent per year.

According to the Rechargeable Battery Recycling Corporation (RBRC), the current recycling rate for rechargeable batteries is in the 11% to 16% range. In 1994, the RBRC set a goal of 70% battery recycling by 2001. While the RBRC retailer take back program represents a fine model, after 10 years, it's apparent that the 'voluntary' approach has proven to be insufficient.

THIS BILL

This bill requires all retailers who sell rechargeable batteries that do at least \$1 million in sales annually, excluding grocery stores listed in the Progressive Grocers Marketing Guidebook, to take back previously used rechargeable batteries for reuse, recycling, or proper disposal, at no cost to the consumer, on and after July 1, 2006. This bill also requires the Department of Toxic Substances Control to post an estimated California recycling rate for rechargeable batteries on its Web site by July 1, 2007.

BACKGROUND

There are two basic types of dry cell batteries - primary and rechargeable. Most dry cells (almost 90 percent in 1992) are primary batteries that must be replaced once discharged. On the other hand, rechargeables can be used repeatedly because the chemical reaction that creates the energy can be reversed, thereby recharging the battery. Rechargeables initially may be more expensive than primary batteries, but each rechargeable can substitute for hundreds of primary batteries and cost less than the primary batteries it replaced over its life, as well as reduce the amount of waste generated.

Markets for rechargeable batteries cover a broad range of power requirements - from low power drain (portable computers) to high power drain (power tools). At present other rechargeables compete with Ni-Cds for low power drain applications. Ni-Cds have rapidly lost market share to nickel-metal hydride and lithium-ion batteries for use in portable computers. But only Ni-Cds can be used for high power drain applications such as power tools. Ni-Cds continue to dominate the markets for such devices and for other products including electric appliances like "dustbusters," and video cameras.

COMMENTS

Both California and Federal law acknowledge the hazards posed by rechargeable batteries. The goal of this measure is to build onto the existing free retailer-based recycling programs already in place at several thousand retail locations in California.

AB 1125 would require retailers who sell rechargeable batteries to have a collection system in place for used batteries, aiding taxpayer compliance with the upcoming implementation of hazardous waste laws. An online tracking of the estimated rechargeable battery recycling rate would help follow the legislation's success, useful as an indicator of associated waste diversion and pollution prevention.

Recycling programs for rechargeable batteries can significantly reduce the dangers these batteries pose to human health and the environment by diverting them from landfills and incinerators. Once the rechargeable batteries arrive at the recycling facility, the heavy metals

are recovered during the recycling process and the remainder of the product is recycled or discarded safely.

Overall, this bill both helps consumers comply with the law and keep California cleaner.

EXISTING LAW

In 1993, California enacted two statutes aimed at reducing the hazards posed by household batteries. AB 1787 (Bowen), established a phase-out of mercury in household batteries (similar federal legislation was adopted in 1996).

AB 1769 (Margolin) encouraged retailers and manufacturers to establish recycling programs for rechargeable batteries, as well as establishing a uniform labeling program for manufacturers.

In 1992, the State of New Jersey adopted the nation's first retailer 'take-back' and recycling requirement for rechargeable batteries. In response to that legislation, the manufacturers of rechargeable batteries and many of the product makers that use them formed and financed the 'Rechargeable Battery Recycling Corporation' (RBRC), a non-profit organization whose mission is to promote and facilitate a retailer-based take back and recycling system for rechargeable batteries. Today, that program boasts that retailers representing more than 30,000 locations in the U.S. and Canada have agreed to participate in this voluntary program. According to an RBRC press release, approximately 2300 tons of rechargeable batteries were collected for recycling through the RBRC program in 2004.

In addition to New Jersey, eight other states (Connecticut, Florida, Iowa, Maine, Maryland, Minnesota, and Vermont) have take-back requirements that apply to rechargeable batteries.

SUPPORT

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California Alliance for Consumer Protection
California League of Conservation Voters
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Natural Resources Defense Council
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Santa Clara County Board of Supervisors
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Solid Waste Association of North America
Sierra Club
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FOR MORE INFORMATION

Debra Gravert, Assemblymember Fran Pavley (Author)
916-319-2344
debra.gravert@asm.ca.gov

Mark Murray, Californians Against Waste (Sponsor)
916-443-5422
murray@cawrecycles.org